What is claimed is:

1. An image capture focal length detecting method, comprising the steps of:

acquiring a plurality of image data while changing focal length of an optical system;

acquiring, from the acquired plurality of image data, high frequency component evaluated values, being contrast evaluated values of respective high frequencies, and low frequency component evaluated values, being contrast evaluated values of low frequency components of a frequency lower than the high frequency;

calculating a first focal length using whichever image data a peak value of the high frequency component evaluated values is recorded in;

detecting whether or not there is a moiré in image data of this first focal length;

making the first focal length an image capture focal length if there is no moiré in the image data of the first focal length; and

when there is moiré in the image data of the first focal length, comparing reference evaluated values corresponding to a length based on the low frequency component evaluated values with evaluated values corresponding to a length based on the high frequency component evaluated values, and selecting an image capture focal length in a range where this evaluated value takes a value that is less than or equal to the reference evaluated value.

2. The image capture focal length detecting method of claim 1, wherein calculation of reference evaluation values involves calculation of a proportion of low frequency component evaluated values and high frequency component evaluated values for each image data, for the case when a peak value of low frequency component evaluated values and a peak value of high frequency component evaluated values coincide, and also calculation using a calculation to relatively subtract low

frequency component evaluated values from high frequency component evaluated values.

3. The image capture focal length detecting method of claim 2, wherein low frequency component evaluated values are relatively subtracted to calculate reference evaluated values, in response to a specified value, being a variable, according to image capture conditions.

4. The image capture focal length detecting method of claim 3, wherein the specified value is set larger as the depth of field becomes larger.

5. The image capture focal length detecting method of claim 1, wherein any focal length where an evaluated value based on a high frequency component evaluated value matches a reference evaluated value is selected as an image capture focal length depending on image capture mode.

6. The image capture focal length detecting method of claim 1, wherein whether or not a moiré exists is detected utilizing variation in high frequency component evaluated values and low frequency component evaluated values in a plurality of image data that have been acquired while varying focal length of an optical system.

7. The image capture focal length detecting method of claim 1, further comprising the steps of:

setting a plurality of image detection regions adjacent to one another;

calculating, from a plurality of acquired image data, a partial focal length using whichever image data a peak value of respective contrast evaluated values is recorded in, for every image detection region, and calculating a reliability according

to movement of a position where respective peak values are recorded between the plurality of image data; and

in response to the reliability and the evaluated values, selecting a first focal length from among the partial focal lengths and a specified focal length.

8. An image capture device, comprising:

an imaging element;

an optical system for causing an image of a subject to be formed on this imaging element;

optical system drive means for varying a focal length of the optical system; and

image processing means for processing image data output from the imaging element and controlling the optical system drive means, wherein

the image processing means

controls the optical system drive means;

acquires a plurality of image data while changing focal length of the optical system;

acquires, from the acquired plurality of image data, high frequency component evaluated values, being contrast evaluated values of respective high frequencies, and low frequency component evaluated values, being contrast evaluated values of low frequency components of a frequency lower than the high frequency;

calculates a first focal length using whichever image data a peak value of the high frequency component evaluated values is recorded in;

detects whether or not there is a moiré in image data of this first focal length;

makes the first focal length an image capture focal length if there is no moiré in the image data of the first focal length; and

when there is moiré in the image data of the first focal length, compares reference evaluated values corresponding to a length based on the low frequency

component evaluated values with evaluated values corresponding to a length based on the high frequency component evaluated values, and selects an image capture focal length in a range where this evaluated value takes a value that is less than or equal to the reference evaluated value; and

controls the optical system drive means to set focal length of the optical system to the image capture focal length.